

Remarks

Claims 1-18 are pending. Claims 1-18 are rejected.

Amendment to the Claims

In this Amendment, Applicants have cancelled claims 1-6, 12-16 and 18 from further consideration in this application. Applicants are not conceding that the subject matter encompassed by claims 1-6, 12-16 and 18 is not patentable. Claims 1-6, 12-16 and 18 were cancelled in this Amendment solely to facilitate expeditious prosecution of the remaining claims. The Applicants respectfully reserve the right to pursue additional claims, including the subject matter encompassed by claims 1-6, 12-16 and 18, as presented prior to this Amendment in one or more continuing applications.

Claims 7 and 17 are amended with merely clarifying amendments. Support for these amendments can be found throughout the specification, for example, Figure 6 and paragraph [0070] (“count the cost of any alternative encodings as shown in the figure and to select that which gives the shortest total token length”).

Claims 19-28 are newly added. Support for these claims can be found throughout the specification, for example, claims 8-11; paragraph [0092] (“indicate "output a literal, followed by a token of length 2""); and paragraph [0071] (“new token sizes start at string lengths 2, 4, 8, 16 and 32”).

No new matter is added.

Interview Summary

Examiner Mohammad Reza and Ricardo Ochoa held a telephone interview on June 25, 2008 at 11 am. Clarifying amendments to claims 7 and 17 were discussed. The Clark reference was also discussed. No agreement was made.

Claim Rejection - 35 U.S.C. § 112, second paragraph

The Examiner has rejected claims 1-18 under 35 U.S.C. § 112, second paragraph, as being indefinite. The Applicants assert that the claims as presently presented overcome these rejections and respectfully request the Examiner remove these rejections.

Claim Rejection - 35 U.S.C. § 103(a)

The Examiner has rejected claims 1-18 as being unpatentable under 35 U.S.C.

103(a) over Clark et al. (U.S. Patent No. 5,778,255), herein Clark, in view of Winters et al. (U.S. Patent No. 5,532,693), herein Winters. The Applicant includes the following comments to clearly distinguish the claimed invention over the art cited by the Examiner, and respectfully requests a favorable reconsideration of claims 7-11 and 17.

These rejections are respectfully disagreed with, and are traversed below.

It is well established law that in order for an obviousness rejection to be proper, the Patent Office must meet the burden of establishing a prima facie case for obviousness. Thus, as interpreted by the Courts, the Patent Office must meet the burden of establishing that all elements of the invention are disclosed in the prior art and that in accordance with *In re Lee*, the prior art must contain a suggestion, teaching, or motivation for one of ordinary skill in the art to modify a reference or combine references; and that the proposed modification must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made.¹

Regarding claim 7, which recites:

“A method for parsing an input data stream, comprising:
storing a history buffer for containing an unencoded version of at least one previously encoded string;
comparing a string from said input data stream with said unencoded version of at least one previously encoded string to identify matches between character strings in the input data stream and character strings in the unencoded version of the at least one previously encoded string;
storing: an indicator that there exist at least two matches identified, and potential tokens corresponding to said at least two matches for a plurality of alternate encodings;
for each alternate encoding in the plurality of alternate encodings, **summing lengths of the potential tokens** in the alternate encoding to provide a total potential token length for the alternate encoding;
comparing said total potential token lengths to determine a shortest total potential token length;
selecting an encoding corresponding to the shortest total potential token length; and
generating encoding information representing said selected encoding” (emphasis added).

¹ *In Re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Agmen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996); *In Re Sang Su Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002).

The Examiner asserts:

“Clark discloses a method comprising:

storing a history buffer for containing an unencoded version of at least one previously encoded string (col. 1, lines 49-67);

storing: an indicator that there exist at least two matches found by said first comparison component, and tokens corresponding to said at least two matches (col. 6, lines 53-67, col. 13, lines 26-59);

summing potential token lengths to provide total potential token lengths (col. 2, lines 32-42, col. 7, lines 32-43);

comparing said total potential token lengths (col. 9, lines 17-32);

selecting a match corresponding to a shortest total token length to represent said string from said input data stream; and emitting tokens representing said match corresponding to a shortest total token length (col. 11, lines 5-35). He does not expressly disclose comparing a string from said input data stream with said unencoded version of said at least one previously encoded sting” (emphasis added).

The Applicants assert that the Examiner has misinterpreted the teachings of Clark.

Consider the following portions of Clark:

“With regard to the length part of the string token, known implementations of the LZ algorithm use a variable number of bits. The **pointer part of the string token includes a number of bits** necessary to address all bytes in the history buffer. Such a pointer part typically has a fixed length, but may also have a variable length in some implementations. Raw-byte tokens may include extra bits for differentiating raw-byte tokens from string tokens during decompression. For data integrity checking, a CRC, **check sum or similar error detection code** may be appended to a compressed data set” (col. 2, lines 32-42, emphasis added).

“In another embodiment, string tokens may be converted to “single-byte string tokens,” wherein such a **single-byte string token has a length of one** and includes a single-byte pointer that points to one byte, which may be stored in the history buffer. As expand stage 160 calculates the **number of tokens** that will provide N bytes of decompressed data during a single cycle, expand stage 160 requests additional tokens from parse stage 156. The output of expand stage 160 is a **number of tokens** needed to provide N tokens in a single cycle. Such tokens are stored in N fields 162 wherein such fields are addressed as field j, j having a value from zero to N-1” (col. 7, lines 32-43, emphasis added).

“With reference again to block 306, if the process **determines that token i is a string token**, rather than a raw-byte token, the process sets the variable L **equal to the string length** of the string token i, outputs the history buffer address (HBA) from the string token to field j in expand stage output buffer 352, and increments j to point to the next field in expand stage output buffer 352, as illustrated in block 318.

Thereafter, the process decrements the string length L and increments the history buffer address, as depicted at block 320. Those persons skilled in the art should realize that the process described in relation to block 318 **creates a "single-byte string token" from a string token that represents multiple bytes of decompressed data**. Such a single-byte string token includes a pointer that points to other data, and a length that is set equal to one to represent a "string" of length one" (col. 9, lines 17-34, emphasis added).

Clark does not disclose or suggest "summing lengths of the potential tokens in the alternate encoding to provide a total potential token length for the alternate encoding" as in claim 7. Rather, the cited portions of Clark disclose a "check sum or similar error detection code" and calculating "a number of tokens". There is no discussion that "lengths of the potential tokens" are summed. Clearly, Clark does not disclose this element of claim 7.

As Clark does not disclose or suggest "summing lengths of the potential tokens in the alternate encoding to provide a total potential token length for the alternate encoding", Clark also does not disclose or suggest "comparing said total potential token lengths to determine to a shortest total potential token length". The cited portion of Clark teaches a process to create "a "single-byte string token" from a string token". Clearly, Clark does not disclose this element of claim 7.

Winter is not suggested to teach suggest "summing lengths of the potential tokens in the alternate encoding to provide a total potential token length for the alternate encoding" or "comparing said total potential token lengths to determine to a shortest total potential token length" as in claim 7. Rather, Winter teaches a "greedy algorithm" and reports "the longest matching string" (see Abstract).

As neither Clark nor Winter teach suggest "summing lengths of the potential tokens in the alternate encoding to provide a total potential token length for the alternate encoding" or "comparing said total potential token lengths to determine to a shortest total potential token length", then the combination of Clark and Winter, herein Clark-Winter, also does not disclose or suggest these elements. As Clark-Winter does not disclose all elements of claim 7, claim 7 is in condition for allowance.

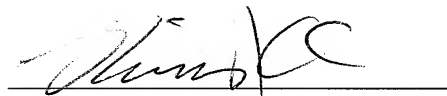
As claim 17 recites similar language to that discussed above with reference to claim 7, claim 17 is likewise in condition for allowance. As claims 8-11 depend upon claim 7, they are likewise in condition for allowance.

In light of the discussion above, the Applicant respectfully asserts that a prima facie case for obviousness was not presented as required by the court in *In re Lee*. As such, the Applicant respectfully requests that the Examiner reconsider and withdraw these rejections to claims 7-11 and 17.

As newly added claims 19-28 depend upon claims 7 and 17, they are likewise in condition for allowance

For the foregoing reasons, the Applicants believe that each and every issue raised by the Examiner has been adequately addressed and that this application is in a condition for allowance. As such, early and favorable action is respectfully solicited.

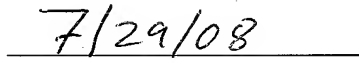
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